

# RAILROAD COMMISSION OF TEXAS

## **HEARINGS DIVISION**

OIL AND GAS DOCKET NO. 01-0279191

THE APPLICATION OF ESCONDIDO RESOURCES II, LLC TO AMEND FIELD RULES FOR THE SUN T S H (OLMOS) FIELD, LA SALLE COUNTY, TEXAS

**HEARD BY:** 

Andres J. Trevino, P.E. - Technical Examiner

Terry Johnson-Legal Examiner

DATE OF HEARING:

December 17, 2012

APPEARANCES:

REPRESENTING:

#### APPLICANT:

Bill G. Spencer

Escondido Resources II, LLC

Cary McGregor

Keith B. Masters, P.E.

Lewis Petro Properties, Inc.

#### **EXAMINER'S REPORT AND RECOMMENDATION**

#### STATEMENT OF THE CASE

Field Rules for the Sun T S H (Olmos) Field were originally adopted in Final Order No. 01-0242462, effective May 10, 2005, as amended. The Field Rules in effect for the field are summarized as follows:

- 1. Designation of the field as the correlative interval from 5,850' to 7,710' as shown on the Induction Density Neutron log of the Battlecat Operating Co... LLC J. Foster Estate Lease, Well No. 9;
- 2. 467'-600' well spacing;
- 3. 40 acre oil and gas units with optional 20 acre density;
- 4. Allocation based on 95% deliverability and 5% per well for oil and gas wells and AOF status.

Escondido Resources II, LLC ("Escondido") requests that Field Rule Nos. 2 and 3 be amended to provide for no between well spacing with special provisions for "take points", 100' dual lease line spacing, a "box rule" and "off-lease" penetration point for horizontal drainhole wells and no requirement for the filing of individual proration unit plats. Escondido also requests that Field Rule No. 5 be adopted to provide for "stacked laterals" for horizontal drainhole wells and that the allocation formula remain suspended.

The application was unprotested and the examiners recommend that field rules be amended for the Sun T S H (Olmos) Field, as proposed by Escondido.

### **DISCUSSION OF EVIDENCE**

The Sun T S H (Olmos) Field was discovered in 1983 at an average depth of 7,616 feet. The field is designated as an associated field with 234 producing gas wells, 22 oil wells and four operators carried on the proration schedules. The field operates under Special Field Rules that provide for 467'/600' well spacing and 40 acre oil and gas units with optional 20 acre density. The allocation formula is currently suspended. Cumulative production from the field through September 2012 is 63.7 BCFG and 1.56 MMBO.

Escondido and Lewis Petro Properties have permitted four horizontal wells and requests horizontal rules in order to promote the efficient and effective development of the remaining hydrocarbons in the Sun T S H (Olmos) Field with horizontal wells. Successful horizontal devolvement is occurring in other area Olmos fields such as the Owens (Olmos) Field. Production data from the Owens (Olmos) field indicates a horizontal well in two years will produce five times more hydrocarbons than a vertical well. Additionally, a horizontal well will produce three times more hydrocarbons in two years than a vertical well can produce in 30 years.

Escondido requests a spacing rule that requires 467' lease line spacing, no between well spacing with special provisions for "take points", 100 foot dual lease line spacing, off-lease penetration point and a "box rule" for horizontal drainhole wells. Escondido argues that the proposed spacing is necessary to allow drilling of horizontal wells which may have to be placed very near each other in some cases. Based on horizontal development in the Owens (Olmos) field, one foot of lateral length is expected to produce 400 MCF of gas. The off lease penetration rule will allow an additional 600 feet of lateral per well which will potentially allow the recovery of an additional 240 MMCF of gas. The 100 foot dual lease line spacing rule will allow an additional 734 feet of lateral per well which will potentially allow the recovery of an additional 293.6 MMCF of gas. A single well could recover an additional 533.6 MMCF of gas with the two rule changes.

Escondido proposes a tolerance "box rule" for horizontal drainhole wells that would allow drainholes to deviate 50 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

Escondido also requests that a Field Rule be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the Olmos interval is 1,860 feet. Escondido believes that several separate laterals may be necessary to effectively develop the various reservoirs with horizontal wells. The rule would allow stacked horizontal laterals within the Olmos correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainholes which are drilled from different surface locations. Escondido further believes the Olmos sands will be the primary target and may later drill a separate lateral in the Escondido sands. Similar horizontal drainhole well rules have already been adopted in the Briscoe Ranch (Eagleford), Owens (Olmos) and La Tiendas (Olmos) Fields.

The allocation formula is currently suspended and Escondido requests that it remain suspended, as there is a 100% market demand for all of the gas produced from the field. Additionally, Escondido requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well.

### FINDINGS OF FACT

- 1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
- 2. The Sun T S H (Olmos) Field was discovered in 1983 at an average depth of 7,616 feet. The field is designated as an associated field with 234 producing gas wells, 22 oil wells and four operators carried on the proration schedules.
- 3. Field rules for the Sun T S H (Olmos) Field provide for 467'/600' well spacing and 40 acre oil and gas units with optional 20 acre density. The allocation formula is currently suspended.
- 4. Escondido and Lewis Petro Properties have permitted four horizontal wells in the Sun T S H (Olmos) Field.
- 5. Field Rules that provide for 467' lease line spacing and no between well spacing with special provisions for "take points", 100 foot dual lease ling spacing, "off-lease" penetration point, a "box rule" and "stacked laterals" for horizontal wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
- 6. Successful horizontal devolvement is occurring in other area Olmos fields such as the Owens (Olmos) Field.

- a. Production data from the Owens (Olmos) field indicates a horizontal well in two years will produce five times more hydrocarbons than a vertical well.
- b. Additionally, a horizontal well will produce three times more hydrocarbons in two years than a vertical well can produce in 30 years.
- 7. The proposed 100 foot dual lease line spacing rule and off lease penetration rule will allow the recovery of addition gas that would otherwise not be recovered.
  - a. Based on horizontal development in the Owens (Olmos) field, one foot of lateral length is expected to produce 400 MCF of gas.
  - b. The off lease penetration rule will allow an additional 600 feet of lateral per well which will potentially allow the recovery of an additional 240 MMCF of gas.
  - c. The 100 foot dual lease line spacing rule will allow an additional 734 feet of lateral per well which will potentially allow the recovery of an additional 293.6 MMCF of gas.
  - d. A single well could recover an additional 533.6 MMCF of gas with the two rule changes.
- 8. The proposed 50 foot "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
- 9. The proposed "stacked lateral" rule will allow stacked horizontal laterals within the Olmos correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes, which will facilitate the additional recovery of gas.
- 10. The gross thickness of the Olmos interval is 1,860 feet. The Olmos sands will be the primary target and the Escondido sands may be drilled later as a separate lateral.
- 11. Similar horizontal drainhole well rules have already been adopted in the Briscoe Ranch (Eagleford), Owens (Olmos) and La Tiendas (Olmos) Fields.
- 12. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all of the gas produced from the field.

### **CONCLUSIONS OF LAW**

- 1. Proper notice of this hearing was issued.
- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
- 3. Amending field rules for the Sun T S H (Olmos) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend the field rules for the Sun T S H (Olmos) Field, as proposed by Escondido Resources II, LLC.

Respectfully submitted,

Ándres J. Trevino, P.E. Technical Examiner Terry Johnson Legal Examiner